SEQUENCE LISTING

<110> FOWLKES, Dana M.
KAY, Brian K.
FRELINGER, Jeffrey A.
HYDE-DERUYSCHER, Robin P

<120> IDENTIFICATION OF DRUGS USING COMPLEMENTARY COMBINATORIAL LIBRARIES

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20 25 30

Asn Asp Ile Leu
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Gly Ala Pro Trp Asn Trp Glu Lys Lys Glu Leu
1 5 10

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<400> 51

Ala Asp Pro Arg Leu Pro Val Glu Arg Glu Leu
1 5 10

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<211> 12
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<400> 52

Met Asp Gly Ser Gly Gly Glu Arg Asn Ser Met Trp
1 5 10

<210> 53
<211> 12
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<400> 53

Pro Met Arg Thr Glu Trp Ala Val Gly Ser Glu Ser
1 5 10

<210> 54
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<220>
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<400> 54

Ser Arg Val Cys Ala Ile Trp Pro Asp Leu Asp Gly Cys Ser Arg
1 5 10 15

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Ser Arg Trp Cys Ser Leu Arg Pro Gln Asp Glu Gly Cys Ser Arg
1 5 10 15

<210> 56
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<400> 56

Ser Arg Trp Cys Glu Leu Trp Pro Glu Gly Ser Gly Cys Ser Arg
1 5 10 15

<210> 57
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<400> 57

Ser Arg Trp Cys Glu Leu Trp Pro Glu Gly Ser Gly Cys Ser Arg
1 5 10 15

<210> 58
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<400> 58

Ser Arg Leu Cys Glu Val Trp Pro Gln Thr Ala Gly Cys Ser Arg
1 5 10 15

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<220>
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<400> 59

Ser Arg Trp Cys Asp Ile Trp Pro Asp Thr Gly Ser Cys Ser Arg
1 5 10 15

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<220>
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<400> 60

Ser Arg Leu Cys Asp Ile Met Pro Gln Thr Val Gly Cys Ser Arg
1 5 10 15

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<400> 61

Ser Arg Trp Cys Glu Val Trp Pro Asp Lys Arg Trp Cys Ser Arg
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<222> (6)..(6)
<223> Xaa is any hydrophobic amino acid

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<222> (9)..(9)
<223> Xaa is any hydrophobic amino acid

<220>
<221> misc_feature
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Ser Arg Trp Cys Xaa Xaa Trp Pro Xaa Xaa Xaa Gly Cys Ser Arg
1 5 10 15

<210> 63
<211> 45
<212> DNA
<213> Artificial

<220>
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<220>
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<222> (1)..(45)

<400> 63
tcg agg gtg tgt gct att tgg ccg gat ctg gat ggt tgc tct aga 45
Ser Arg Val Cys Ala Ile Trp Pro Asp Leu Asp Gly Cys Ser Arg
1 5 10 15

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<211> 15
<212> PRT
<213> Artificial

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<400> 64

Ser Arg Val Cys Ala Ile Trp Pro Asp Leu Asp Gly Cys Ser Arg
1 5 10 15

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<222> (1)..(45)

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Ser Arg Trp Cys Glu Leu Trp Pro Glu Gly Ser Gly Cys Ser Arg
1 5 10 15

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<400> 66

Ser Arg Trp Cys Glu Leu Trp Pro Glu Gly Ser Gly Cys Ser Arg
1 5 10 15

<210> 67

<211> 12
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Leu Tyr Ser Trp Pro Asp Glu Gln Tyr Glu Arg Pro
1 5 10

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<400> 68

Phe Gly Phe Tyr Gly Trp Pro Asp Asp Gln Tyr
1 5 10

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<400> 69

Met Tyr Thr Trp Pro Gly Ser Pro Tyr Leu Gln Met
1 5 10

<210> 70
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<220>
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<400> 70

Met Tyr Ser Trp Pro Gly Glu His Tyr Thr Val His
1 5 10

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<400> 71

Met Tyr Ala Trp Pro Asp Ser Ser Glu Leu Glu Lys
1 5 10

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<220>
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<400> 72

Met Tyr Ser Trp Pro Gly Val
1 5

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<220>
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<400> 73

Tyr Tyr Gly Trp Pro Ser Glu
1 5

<210> 74
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<400> 74

Asp Arg Val Tyr Gly Trp Pro Pro Phe Glu Glu
1 5 10

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<220>
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<400> 75

Ala Tyr His Trp Pro Trp Val Glu Ser Glu Trp
1 5 10

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<400> 76

Gly Tyr Ser Trp Pro Trp Pro Asp Asp Asn Ala Ser Arg

1 5 10

<210> 77
<211> 11
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<400> 77

Ile Tyr Ser Trp Pro Trp Pro Ser Asn Glu Asn
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<210> 78
<211> 7
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<220>
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<400> 78

Gln Tyr Thr Trp Pro Trp Pro
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<210> 79
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<220>
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<400> 79

Tyr Ser Trp Pro Trp Asp Phe Asn Glu Thr
1 5 10

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Ala Tyr Ser Trp Pro Trp His Asp Thr Val Asp
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<400> 81

Trp Asp Gly Phe Ala Trp Pro Met His Gln Thr
1 5 10

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<400> 82

Trp Pro Trp Gly Gly Phe Glu Trp Pro Lys Leu
1 5 10

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<400> 83

Arg Tyr Trp Trp Pro Asp Trp Gly Ser Arg Glu
1 5 10

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<220>
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<400> 84

Leu Trp Trp Pro Glu Trp Gly Val Tyr Thr Gly
1 5 10

<210> 85
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<220>
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<400> 85

Tyr Phe Trp Trp Pro Asp Trp Gly Ser Ala
1 5 10

<210> 86
<211> 13
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<220>
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<400> 86

Asp Arg Gly Trp Trp Trp Pro Ser Trp Gly Val Ser Arg
1 5 10

<210> 87
<211> 11
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<220>
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<400> 87

Gly Tyr Trp Trp Pro Asp Trp Gly Ser Gly Gln
1 5 10

<210> 88
<211> 11
<212> PRT
<213> Artificial

<220>
<223> TyrRS-binding peptide from library

<400> 88

Ala Glu Tyr Trp Trp Pro Asp Trp Gly Phe Phe
1 5 10

<210> 89
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<400> 89

Arg Leu Gln Tyr Trp Trp Pro Asp Trp Gly Pro
1 5 10

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<211> 11
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<223> TyrRS-binding peptide from library

<400> 90

Met Tyr Trp Trp Pro Asn Trp Gly Ser Gln Glu
1 5 10

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<212> PRT
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<223> TyrRS-binding peptide from library

<400> 91

Trp Leu Asp Gly Leu Pro Leu Tyr His Glu Val
1 5 10

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<220>
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<400> 92

Asp Thr Val Arg Lys Asp Leu Leu Leu Glu Arg Glu
1 5 10

<210> 93
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<220>
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<222> (2)..(2)
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Tyr Xaa Trp Pro
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<223> extended TyrRS-binding motif

<400> 94

Tyr Trp Trp Pro Asp Trp Gly
1 5

<210> 95
<211> 15
<212> PRT
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<220>
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<400> 95

Ser Ser Gln Thr Asp Trp Arg Lys Ile Phe Gln Ser Leu Ser Arg

1 5 10 15

<210> 96
<211> 15
<212> PRT
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<220>
<223> beta-glucosidase binding peptide from library

<400> 96

Ser Ser Ser Thr Asp Trp Leu Asn Val Trp Arg Gln Leu Ser Arg
1 5 10 15

<210> 97
<211> 15
<212> PRT
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<220>
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<400> 97

Ser Ser Ala Thr Asp Trp Gly Arg Val Tyr Ser Ile Leu Ser Arg
1 5 10 15

<210> 98
<211> 15
<212> PRT
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<220>
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<400> 98

Ser Ser Ala Ser Tyr Ala Pro Trp Pro Ile Tyr Phe Ala Ser Arg
1 5 10 15

<210> 99
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<212> PRT
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<220>
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<400> 99

Ser Ser Gly Ala Phe Lys Pro Trp Pro Val Tyr Ser Phe Ser Arg
1 5 10 15

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Ser Arg Gln Val Glu Val Phe Lys Pro Trp Pro Val Tyr Ser Arg
1 5 10 15

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<400> 101

Ser Ser Ser Phe Lys Pro Trp Pro Ile Tyr Leu Gly Ser Ser Arg
1 5 10 15

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<220>
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<400> 102

Ser Ser Glu Pro Phe Ser Val Trp Pro Ile Tyr Lys His Ser Arg
1 5 10 15

<210> 103
<211> 15
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<220>
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<400> 103

Ser Ser Ser Val Pro Phe Ala Pro Trp Pro Val Tyr Ala Ser Arg
1 5 10 15

<210> 104
<211> 15
<212> PRT
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<220>
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<400> 104

Ser Ser Thr Ser Leu Pro Phe Asn Arg Trp Pro Ile Tyr Ser Arg
1 5 10 15

<210> 105
<211> 15
<212> PRT
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<220>
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<400> 105

Ser Arg Leu Leu Glu Val Ser Pro Gly Trp Trp Gln Met Ser Arg
1 5 10 15

<210> 106
<211> 15
<212> PRT
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<220>
<223> carboxypeptidase binding peptide from library

<400> 106

Ser Ser Phe Arg Glu Leu Lys Pro Gly Trp Trp Ser Tyr Ser Arg
1 5 10 15

<210> 107
<211> 15
<212> PRT
<213> Artificial

<220>
<223> carboxypeptidase binding peptide from library

<400> 107

Ser Ser Trp Gly Asp Tyr Phe Asn Trp Arg Asp Gly Leu Ser Arg
1 5 10 15

<210> 108
<211> 15
<212> PRT
<213> Artificial

<220>
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<400> 108

Ser Arg Gln Val Glu Val Phe Lys Pro Trp Pro Val Tyr Ser Arg
1 5 10 15

<210> 109
<211> 15
<212> PRT
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<400> 109

Ser Ser Ser Phe Lys Pro Trp Pro Ile Tyr Leu Gly Ser Ser Arg
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<210> 110
<211> 12
<212> PRT
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<400> 110

Ser Val Ser Val Gly Met Lys Pro Ser Pro Arg Pro
1 5 10

<210> 111
<211> 16
<212> PRT
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<220>
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<400> 111

Ser Ser Asn Tyr Trp Trp Gln Ser Pro Val Leu Ser Arg His Ser Arg
1 5 10 15

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<400> 112

Ser Ser Trp Gln Gly Asn Val Leu Leu Gly Asn Trp Ile Ser Arg
1 5 10 15

<210> 113
<211> 15
<212> PRT
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<220>
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<400> 113

Ser Ser Leu Leu Asn Glu Ser Arg Leu Gln Trp Ser Thr Ser Arg
1 5 10 15

<210> 114
<211> 15
<212> PRT
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<220>
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<400> 114

Ser Arg Asp Trp Gly Phe Trp Asp Trp Gly Val Asp Arg Ser Arg
1 5 10 15

<210> 115
<211> 16
<212> PRT

<213> Artificial

<220>
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<400> 115

Ser Arg Asp Trp Gly Phe Trp Arg Leu Pro Glu Ser Met Ala Ser Arg
1 5 10 15

<210> 116
<211> 15
<212> PRT
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<220>
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<400> 116

Ser Arg Glu Trp His Phe Trp Arg Asp Tyr Asn Pro Thr Ser Arg
1 5 10 15

<210> 117
<211> 15
<212> PRT
<213> Artificial

<220>
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<400> 117

Ser Ser Glu Arg Gly Ser Gly Asp Arg Gly Glu Lys Gly Ser Arg
1 5 10 15

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<211> 77
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<220>
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<400> 118

Leu Asn Gly Ser Ala Gly Asp Thr Trp Arg His Leu Ala Gly Glu Leu
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Gly Tyr Gln Pro Glu His Ile Asp Ser Phe Thr His Glu Ala Cys Pro
20 25 30

Val Arg Ala Leu Leu Ala Ser Trp Ala Thr Gln Asp Ser Ala Thr Leu
35 40 45

Asp Ala Leu Leu Ala Ala Leu Arg Arg Ile Gln Arg Ala Asp Leu Val
50 55 60

Glu Ser Leu Cys Ser Glu Ser Thr Ala Thr Ser Pro Val
65 70 75

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<220>
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<400> 119

Ala Gly Val Met Thr Leu Ser Gln Val Lys Gly Phe Val Arg Lys Asn
1 5 10 15

Gly Val Asn Glu Ala Lys Ile Asp Glu Ile Lys Asn Asp Asn Val Gln
20 25 30

Asp Thr Ala Glu Gln Lys Val Gln Leu Leu Arg Asn Trp His Gln Leu
35 40 45

His Gly Lys Lys Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys
50 55 60

Ala Asn Leu Cys Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys
65 70 75 80

Asp Ile Thr Ser

<210> 120
<211> 84
<212> PRT
<213> Artificial

<220>
<223> fragment of TNF receptor

<400> 120

Thr Asp Asp Pro Ala Thr Leu Tyr Trp Lys Glu Phe Val Arg Arg Leu
1 5 10 15

Gly Leu Ser Asp His Glu Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg
20 25 30

Cys Leu Arg Glu Ala Gln Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg
35 40 45

Thr Arg Arg Glu Ala Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp
50 55 60

Met Asp Leu Leu Gly Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Ala
65 70 75 80

Pro Pro Leu Pro

<210> 121
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<220>
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<220>
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<222> (2)..(3)
<223> Xaa can be any naturally occurring amino acid

<400> 121

Leu Xaa Xaa Leu Leu
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<210> 122
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<220>
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<400> 122

Ser Arg Thr Trp Glu Ser Pro Leu Gly Thr Trp Glu Trp Ser Arg
1 5 10 15

<210> 123
<211> 15
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<220>
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<400> 123

Ser Ser Lys Tyr Ser Tyr Ser Arg Ser Ser Glu Gly His Ser Arg
1 5 10 15

<210> 124
<211> 15
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<400> 124

Ser Ser Trp Val Arg Leu Ser Asp Phe Pro Trp Gly Val Ser Arg
1 5 10 15

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<400> 125

Ser Ser Trp Asp Arg Leu Ser Asp Phe Pro Trp Gly Val Ser Arg
1 5 10 15

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<211> 15
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<400> 126

Ser Ser Trp Ile Arg Leu Arg Asp Leu Pro Trp Gly Glu Ser Arg
1 5 10 15

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<400> 127

Ser Ser Trp Val Leu Leu Arg Asp Leu Pro Trp Gly Ser Arg
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<400> 128

Ser Ser Cys Lys Trp Tyr Glu Lys Cys Ser Gly Leu Trp Ser Arg
1 5 10 15

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<400> 129

Ser Ser Gly Ile Cys Phe Phe Trp Asp Gly Cys Phe Glu Ser Arg
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<400> 130

Ser Arg Asn Leu Cys Phe Phe Trp Asp Asp Glu Tyr Cys Ser Arg
1 5 10 15

<210> 131
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<220>
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His His His Arg His Pro Ala His Pro His Thr Tyr Gly Gly
1 5 10

<210> 132
<211> 15
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<400> 132

Ser Arg Ala Gly Leu Leu Ser Asp Leu Leu Glu Gly Lys Ser Arg
1 5 10 15

<210> 133
<211> 15
<212> PRT
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<220>
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<400> 133

Ser Ser Arg Ser Leu Leu Arg Asp Leu Leu Met Val Asp Ser Arg
1 5 10 15

<210> 134
<211> 15
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<400> 134

Ser Ser Asn Lys Leu Leu Tyr Asn Leu Leu Lys Met Glu Ser Arg
1 5 10 15

<210> 135

<211> 15
<212> PRT
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<220>
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<400> 135

Ser Ser Lys Ser Leu Leu Leu Asn Leu Leu Ser Thr Pro Ser Arg
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<210> 136
<211> 16
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<400> 136

His Ser Phe Pro Pro Glu Ser Leu Leu Val Arg Leu Leu Gln Gly Gly
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Ser Arg Leu Glu Met Leu Leu Arg Ser Glu Thr Asp Phe Ser Arg
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Ser Arg Leu Glu Glu Leu Leu Lys Trp Gly Ser Val Thr Ser Arg
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Ser Arg Leu Glu Gln Leu Leu Lys Glu Glu Phe Ser Tyr Ser Arg
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Ser Arg Leu Glu Gln Leu Leu Arg Ser Glu Pro Asp Phe Ser Arg
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<400> 141

Ser Arg Leu Glu Asp Leu Leu Arg Ala Pro Phe Thr Thr Ser Arg
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<211> 15
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<400> 142

Ser Arg Leu Glu Ser Leu Leu Arg Phe Gly Gln Leu Asp Ser Arg
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<210> 143
<211> 15
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<400> 143

Ser Ser Arg Leu Leu Ser Leu Leu Val Gly Asp Phe Asn Ser Arg
1 5 10 15

<210> 144
<211> 15
<212> PRT
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<400> 144

Ser Arg Leu Glu Glu Leu Leu Leu Gly Thr Asn Arg Asp Ser Arg

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<210> 145
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<400> 145

Ser Arg Leu Lys Glu Leu Leu Leu Leu Pro Thr Asp Leu Ser Arg
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<400> 146

Ser Arg Leu Glu Cys Leu Leu Glu Gly Arg Leu Asn Glu Cys Ser Arg
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<210> 147
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<400> 147

Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg
1 5 10 15

<210> 148
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<400> 148

Ser Arg Leu Ser Cys Leu Leu Met Gly Phe Glu Asp Cys Ser Arg
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<400> 149

Ser Ser Lys Leu Ile Arg Leu Leu Thr Ser Asp Glu Glu Leu Ser Arg
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Ser Ser Arg Leu Met Glu Leu Leu Gln Glu Gly Gln Gly Trp Ser Arg
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Ser Arg Ala Gly Pro Val Leu Trp Gly Leu Leu Ser Glu Ser Arg
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Ser Arg Leu Glu Tyr Trp Leu Lys Trp Glu Pro Gly Pro Ser Arg
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His Ser His Gly Pro Leu Thr Leu Asn Leu Leu Arg Ser Ser Gly Gly
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<400> 166

Ser Ser Tyr Gln Trp Glu Thr His Ser Asp Lys Trp Arg Ser Arg
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<400> 167

Ser Ser Val Thr Lys Lys Ala Leu Thr Ile Ala Lys Asp Ser Arg
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<223> Xaa is Val, Leu, Ile or Met

<220>
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<223> Xaa is Ser, Thr, Ala or Gly

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Xaa Xaa Xaa Cys Xaa Trp Gly Trp Gly Xaa Cys
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<223> Xaa is Phe or Leu

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Ser Phe Thr Asp Tyr Trp Arg Asp Leu Glu Gln
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<223> Xaa is Asp, Glu, Ser or Asn

<400> 172

Xaa Trp Trp Pro Xaa Trp Gly
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<212> PRT
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<223> These amino acids are optional

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<223> Xaa is Ile or Val

<400> 173

Phe Lys Pro Trp Pro Xaa Tyr
1 5

<210> 174
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<212> PRT
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<220>
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<400> 174

Ser Arg Asx Trp Gly Phe Trp
1 5

<210> 175
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<212> PRT
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<400> 175

Trp Xaa Arg Leu Xaa Asp Xaa Pro Trp Gly
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<210> 176
<211> 5
<212> PRT
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<220>
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<400> 176

Cys Phe Phe Trp Asp
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<210> 177
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<212> PRT
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Leu Xaa Xaa Leu Leu
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<210> 178
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<212> PRT
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<220>
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<400> 178

Asp Leu Tyr Asp Asp Asp Asp Lys
1 5

<210> 179
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Tyr Xaa Trp Pro Trp
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<220>
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Pro Gly Trp Trp
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